Inverse of Square Root Function

Version 2

Name:	Date:	Score:
Name:	Date	JC01 C

Direction: Find the inverse of each function, and state its domain and range. Show all your work in the space provided.

1)
$$f(x) = \sqrt{x+1}, x \ge 0$$

2)
$$f(x) = -\sqrt{x} - 1, x \ge 0$$

3)
$$f(x) = -\sqrt{4 - x^2}$$
, $0 \le x \le 2$

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1)
$$f(x) = \sqrt{x+1}, x \ge 0$$

$$f^{-1}(x) = x^2 - 2x + 1$$
; *Domain*: $x \ge 1$, *Range*: $y \ge 0$

2)
$$f(x) = -\sqrt{x} - 1, x \ge 0$$

$$f^{-1}(x) = x^2 + 2x + 1$$
; Domain: $x \le -1$, Range: $y \ge 0$

3)
$$f(x) = -\sqrt{4-x^2}$$
, $0 \le x \le 2$

$$f^{-1}(x) = \sqrt{4-x^2}$$
; Domain: $-2 \le x \le 0$, Range: $0 \le y \le 2$